We Claim:

Sub B1

1. A digital camera system comprising:

a sensing means for sensing an image;

modification means for modifying said sensed image in accordance with modification instructions input into said camera; and

an output means for outputting said modified image;

wherein said modification means includes a series of processing elements arranged around a central crossbar switch.

2. A digital camera as claimed in claim 1 wherein said processing elements include an Arithmetic Logic Unit (ALU) acting under the control of a microcode store wherein said microcode store comprises a writeable control store.

3. digital camera as claimed in claim 1 wherein said processing elements include an internal input and output FIFO for storing pixel data utilized by said processing elements.

4. A digital camera system as claimed in claim 1 wherein said modification means is interconnected to a read and write FIFO for reading and writing pixel data of images to said modification means.

5. A digital camera as claimed in claim 1 wherein said processing elements are arranged in a ring and each element is also separately connected to its nearest neighbours.

6. A digital camera as claimed in any of claims 2 to 5 wherein said ALU accepts a series of inputs interconnected via an internal crossbar switch to a series of core processing units within said ALU.

7. A digital camera as claimed in claim 6 wherein said core processing units include at least one one of a multiplier, an adder and a barrel shifter.

8. A digital camera as claimed in claim 6 wherein said ALU includes a number of internal registers for the storage of temporary data.

9. A digital camera as claimed in claim 1 wherein said processing elements are further connected to a common data bus for the transfer of pixel data to said processing elements.

10. A digital camera as claimed in claim 9 where said data bus is interconnected to a data cache which acts as an intermediate cache between said processing elements and a memory store for storing said images.